

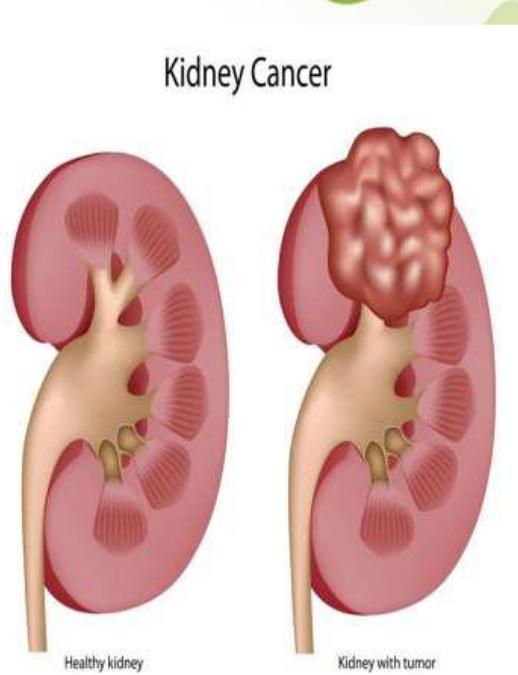
RENAL TUMOURS

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INTRODUCTION

The kidneys are a pair of bean shaped organs located in the abdomen. The function of the kidneys is to filter the blood of certain wastes creating urine. Normally, cells in the kidneys that are old or damaged will stop dividing and die before they can become cancerous. These cells are normally replaced by healthy young cells. Kidney cancer occurs when old or damaged cells continue to divide and multiply uncontrollably. It happens when healthy cells in one or both kidneys turn cancerous and then grow out of control to form a lump (called a tumor). Renal cell carcinoma (RCC) is the most common type of kidney cancer in adults. RCC usually starts in the lining of tiny tubes in the kidney called renal tubules. RCC often stays in the kidney, but it can spread to other parts of the body, most often the bones, lungs, or brain.



Healthy kidney

Kidney with tumor

TYPES

- ❖ There are many types of RCC tumors. Some types spread very fast and others are less likely to spread.
- ❖ The most common RCC tumors are: clear-cell, chromophobe, and papillary.
- ❖ Other types of kidney cancer include: transitional cell carcinoma (TCC).
- ❖ Wilms tumor (most often found in children), and renal sarcoma.



CAUSES

- Age and Gender.
- Sedentary life style.
- Smoking.
- The Genetic causes.
- Obesity.
- High Blood Pressure.
- Kidney Diseases.
- Toxic drugs.



SIGNS & SYMPTOMS

In the early stages, most people don't have signs or symptoms. Kidney cancer is usually found by chance during an abdominal (belly) imaging test for other complaints.

- Classic triad: pain, hematuria, and flank mass occur only rarely and indicate advanced disease.
- More frequent sign and symptoms are:
- Pain
- Hematuria
- Flank mass
- Weight loss
- Hypertension
- Hypercalcemia
- Erythrocytosis
- Varicocele, usually left sided, due to obstruction of the testicular vein.



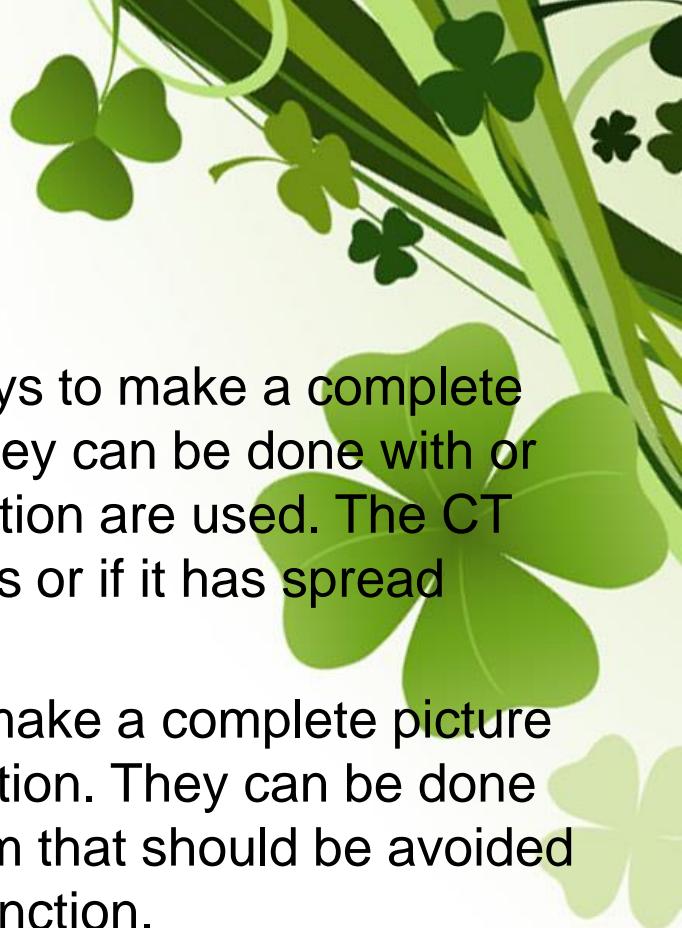
INVESTIGATIONS

Laboratory studies in the evaluation of renal cell carcinoma should include:

- Complete Urine analysis
- CBC
- Electrolytes
- Renal profile
- Liver function tests
- Calcium
- ERS
- PT
- APTT
- Other tests indicated by presenting symptoms



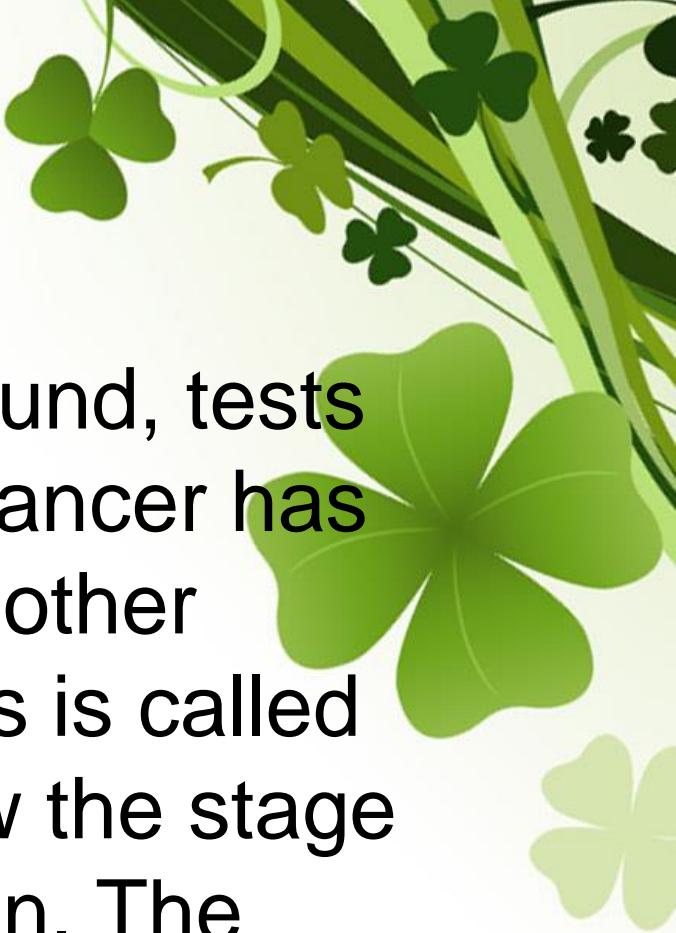
INVESTIGATIONS



Imaging tests includes:

- **Computed tomography:** (CT) scans use x-rays to make a complete picture of the kidneys and abdomen (belly). They can be done with or without a contrast dye. Small amounts of radiation are used. The CT scan often shows if a tumor appears cancerous or if it has spread beyond the kidney. •
- **Magnetic resonance imaging:** (MRI) scans make a complete picture of the kidneys and abdomen, but without radiation. They can be done with or without a contrast dye called gadolinium that should be avoided in people on dialysis or with very low kidney function.
- **Ultrasound:** US scan uses sound waves to give a complete picture of the kidneys and abdomen without radiation. It may be useful in helping to decide if a mass in the kidneys is a fluid-filled cyst or a solid tumor. This test is done without contrast dye.
- A **biopsy** can be used in special cases, but is typically not recommended. A biopsy requires a very small piece of the kidney to be removed with a needle and then tested for cancer cells.

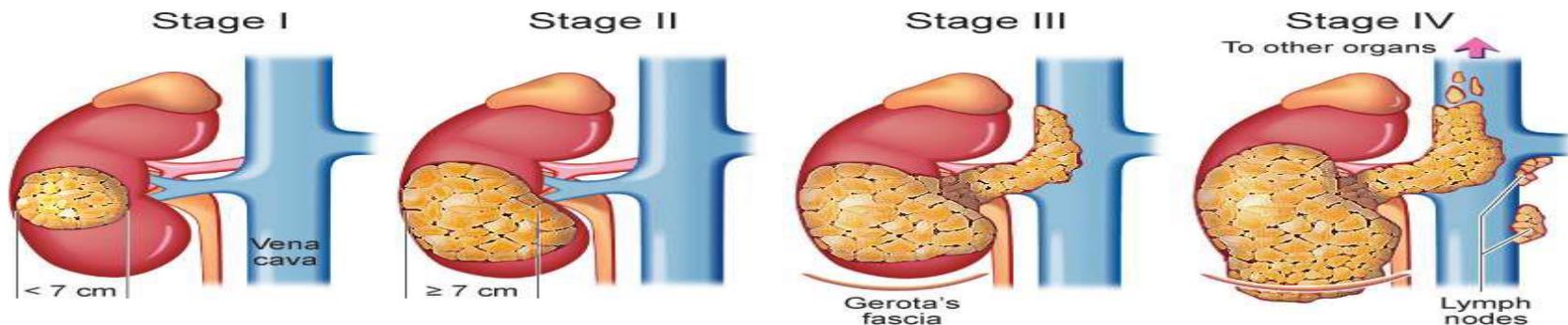
STAGES



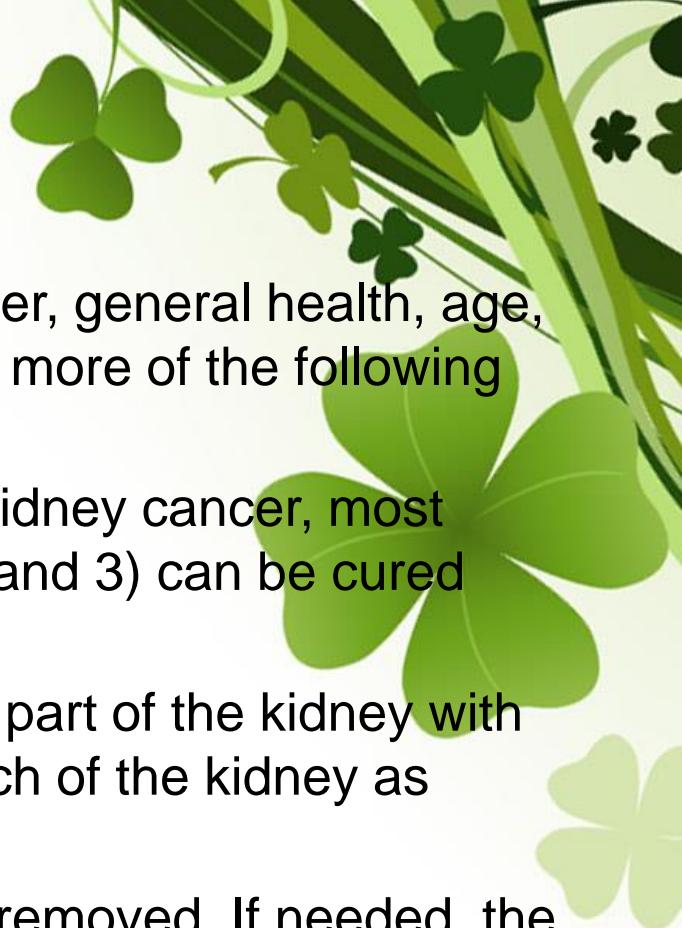
Once kidney cancer is found, tests will be done to find out if the cancer has spread within the kidney or to other parts of the body. This process is called staging. It is important to know the stage before making a treatment plan. The higher the stage, the more serious the cancer.

STAGES

Stages	Description
I	The tumor is 7 centimeters (cm), which is about 23/4" or smaller, and is found only in the kidney.
II	The tumor is larger than 7 centimeters (cm) and is found only in the kidney.
III	Cancer is found in the main blood vessels of the kidney or in the layer of fatty tissue around the kidney. OR The tumor is any size and cancer is found only in the kidney and in 1 or more nearby lymph nodes.
IV	Cancer has spread beyond the layer of fatty tissue around the kidney and may be found in the adrenal gland above the kidney with cancer, or in nearby lymph nodes; or to other organs, such as the lungs, liver, bones, or brain, and may have spread to lymph nodes



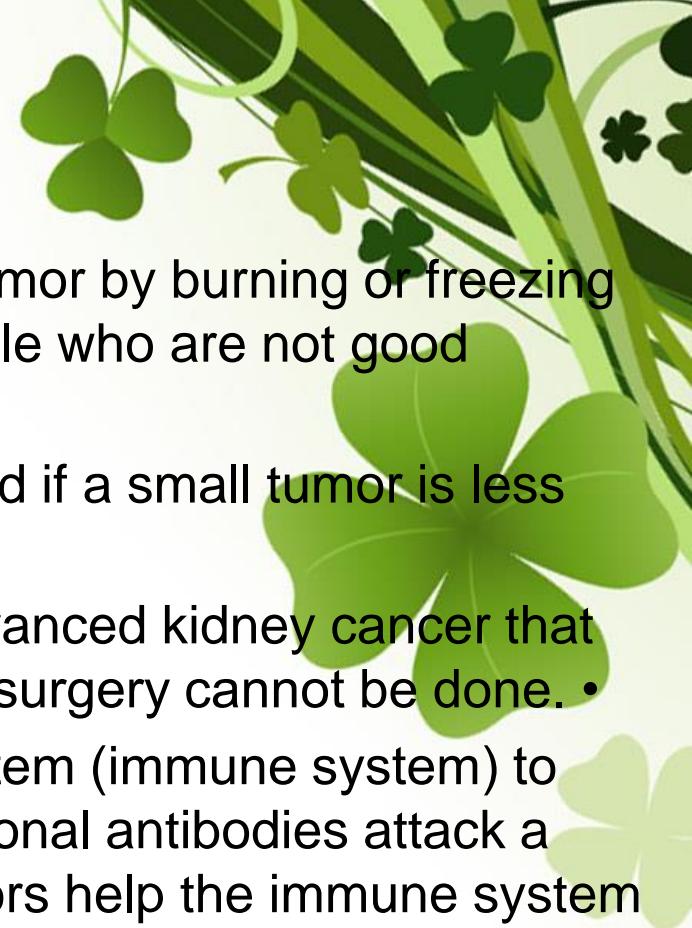
TREATMENT



Treatment depends on the stage of kidney cancer, general health, age, and other factors. Treatment can include one or more of the following options:

- ❖ **Surgery** is the most common treatment for kidney cancer, most people with early stage cancer (stages 1, 2, and 3) can be cured with surgery.
- **Partial nephrectomy**: Only the tumor or the part of the kidney with the tumor is removed to leave behind as much of the kidney as possible.
- **Radical nephrectomy**: The entire kidney is removed. If needed, the surrounding tissues and lymph nodes may also be removed.
- **Open Surgery**: (traditional surgery with a long incision);
- **Laparoscopic** (surgery done with a video camera and thin instruments for smaller incisions)
- **Robotic** (laparoscopic surgery done with the help of a robot)

TREATMENT



- ❖ **Thermal ablation:** Thermal ablation kills the tumor by burning or freezing it. It is most often used for small tumors in people who are not good candidates for nephrectomy surgery.
- ❖ **Active surveillance:** Active surveillance is used if a small tumor is less than 4 centimeters (1 ½ inches).
- ❖ **Treatment with medicine** is often used for advanced kidney cancer that has spread to other parts of the body or where surgery cannot be done. •
- **Immunotherapy:** uses the body's defense system (immune system) to stop or slow the growth of cancer cells. Monoclonal antibodies attack a specific part of cancer cells. Checkpoint inhibitors help the immune system recognize and attack cancer cells. Vaccines and other immunotherapies give an overall boost to the immune system.
- **Anti-angiogenic therapies:** It reduce the blood supply to a tumor to slow or stop its growth.
- **Targeted therapies:** It is used directly to inhibit the growth of the cancer.
- **Chemotherapy and radiation:** used for other types of cancer do not usually do a good job of treating most forms of kidney cancer.

PREVENTION/ EDUCATION

Important Steps to Reduce The Risk for Kidney Cancer

- Don't smoke
- Maintain a healthy weight
- Find out if pt is exposed to certain toxins at work or at home. Some toxins that may increase the risk for kidney cancer include cadmium, asbestos, and trichloroethylene
- People with kidney disease may be at increased risk for kidney cancer. Ask the healthcare provider about 2 simple tests to find the kidney score: A blood test for kidney function called GFR & A urine test for kidney damage called ACR.
- Avoid prolonged use of non-steroidal antiinflammatory drugs (NSAIDs) such as ibuprofen and naproxen.
- Control high blood pressure.
- Control blood sugar if pt have diabetes.
- Be aware of certain risk factors that can't be changed, but should be followed up on such as family history of kidney cancer.

PREVENTION/ EDUCATION

Important Steps If patient have Kidney Cancer

- Discuss all treatment options with medical team. Medical team includes A urologist (a surgical doctor who treats the urinary system) An oncologist (a doctor who specializes in cancer) A radiation oncologist (a doctor who treats cancer with radiation) A nephrologist (kidney doctor) An oncology nurse, social worker, and other healthcare professionals
- Make medical and health-related appointments as soon as possible•
- Maintain good nutrition during treatment so that the pt get enough calories, protein, and other nutrients to help prevent weight loss and to stay strong. Patients who eat well often feel better and have more energy.
- People with kidney cancer may be at increased risk for kidney disease. Control blood pressure and blood sugar, avoid NSAIDs, don't smoke, stay physically active, and follow a healthy diet.

NURSING MANAGEMENT



THANK YOU

